

Pedestrian access - Shepparton Road Underpass [ramp & handrails]

Town of Victoria Park

Shepparton Road Underpass, Victoria Park

OHA

13 February 2024



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1. INTRODUCTION

On 28 November 2023 O'Brien Harrop Access (OHA) Occupational Therapist and Access Consultant Anita Harrop inspected the Shepparton Road Victoria Park underpass and desire line for pedestrian access accompanied by Frank Squadrito, Principal Design and Traffic Coordinator, Rahul Ramabhadran and Waihin Tun, Town of Victoria Park [ToVP].

On 09 February 2023 Anita Harrop liaised with Tim Rankin, Centre Manager Vicinity Centres [Victoria Park Shopping Centre], who provided informative background on his observations of pedestrian movements in relation to the Shepparton Road underpass and short cut, located behind the shopping centre.

Prior to the inspection the above ToVP representatives met, and in combination with the site inspection and liaison with Tim Rankin [Vicinity Centres], the following information was gathered/confirmed.

1.1 REFERENCES

- Disability (Access to Premises – Buildings) Standard 2010 (Amendment 1, 1 May 2011)
- National Construction Code Series Volume One. Building Code of Australia 2019 Class 2 to Class 9 Buildings (Amendment 1)
- AS1428.1 2009 – Design for Access and Mobility – General Requirements for Access – New Building Works
- AS1428.4.1 2009 – Design for Access and Mobility – Means to assist the orientation of people with a vision impairment - Tactile ground surface indicators

1.2 KEY SITE REFERENCE POINTS

The main points of reference informing this report are shown in the Nearmap snapshot [Figure 1] below.



Figure 1: Points of reference informing this report

2. SITE AUDIT FINDINGS

2.1 STEEP RAMPS AND UNDERPASS

- The [steep/existing] pedestrian ramp structure [Figure 2] and underpass [Figure 3] are a Main Roads Western Australia [MRWA] asset, maintained by the Town of Victoria Park.
- The steep ramps on each side of Shepparton Road and the underpass are primarily used by Ursula Frayne students; however, it was evident on the day of the inspection that other pedestrians were also using the steep ramps.
- On assessment, the ramp was assessed as having a gradient of 1:7 for a length of 30 metres (where an Australian Standards compliant pedestrian ramp requires a gradient no steeper than 1:14, with interval landings at distances no greater than 9 metres, with the pedestrian ramp furnished with warning tactile ground surface indicators at the top and base and handrails installed to both sides). The MRWA ramp does not meet any of these requirements. It is understood due to site constraints the ramp cannot be remediated to achieve a compliant gradient with landings at the required 9 metre intervals, thus the steep ramp will be retained as is.

- This ramp is patently not compliant as a pedestrian ramp, and I would suggest is wholly unsuitable for use by a manual or powered wheelchair user due to the non-compliant, lengthy, steep gradient.
- There were no barriers to access identified regarding the pedestrian underpass.

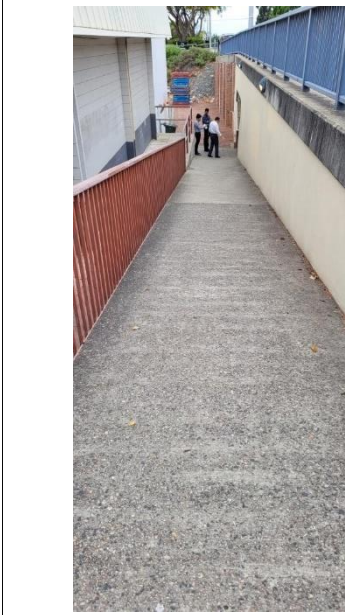


Figure 2: MRWA steep ramp



Figure 3: MRWA underpass

2.2 SLAB PATH

- There is a slab path to the rear of the Victoria Park Central [Vicinity] Shopping Centre that extends at the ground plane level across the rear of the Woolworths.
- The end of the slab path, located about 1m above the ground plane terminates near the western entrance to the underpass and base of the steep MRWA ramp [Refer to Figure 4].
- An assessment of the slab path condition was not undertaken, however on a cursory review of the photos taken of the path [refer to Figure 5], there may be some lips and gaps on the path surface.

2.3 PEDESTRIAN SHORT CUT

Due to the location and ease of access onto the slab path from the shopping centre pedestrians were observed to move between the steep sloped base of the MRWA ramp and the slab path by climbing between the open railing, including, concerningly, older persons [Figures 6 & 7].



Figure 4: End of slab path [1], ramp [2] & underpass [3]



Figure 5: [Vicinity Centre] slab path may have minor lips and gaps



Figure 6: Aged pedestrian with personal wheeled shopping trolley moves between open railings



Figure 7: Two older pedestrians assist each other move between the open railings

- The Town representatives described that in 2018 it was found that the railing had been cut to create a short cut between the steep sloped base of the MRWA ramp and the slab path.
- This shortcut, presumably to create an accessway for pedestrians to and from the shopping centre, as shown in Figure 8 below, had also been furnished with a short bitumen ramp to transition the steep ramp and the slab path.
- In July 2017 the Town of Victoria Park received a complaint that a wheelchair user had tipped out of their wheelchair moving between the slab path [horizontally level] and the steep ramp [1:14 gradient].
- Bitumen had been applied to the abutment between the horizontally level slab path and the abutting 1:14 slope. This does not address the non-compliance associated with wheelchair user movement between the ramp and slab path.
- Figure 8 shows the bitumen set between the ramp and slab path. This image also shows the railings that had previously been removed and reinstated. Thus, at this time, wheelchair access is not possible between the steep ramp and the slab path.



Figure 8: Retained bitumen at the abutment between the slab path and steep ramp, railing in situ

3. PEDESTRIAN MOVEMENT

Mr Rankin described his understanding of pedestrian movement via the above discussed “pedestrian shortcut” as being attributed to the following, referring to Figure 9 below as a reference:

- (1) Ursula Frayne students [green line] moving between:
 - (a) the school, via the underpass
 - (b) the “shortcut” in question
 - (c) the shopping centre:
 - (i) to shelter from the weather
 - (ii) to purchase goods
 - (iii) to take a shortcut to Albany Highway
 - (d) Albany Highway bus routes
- (2) The **public** moving between:
 - (a) Victoria Park Train Station
 - (b) Duncan Street footpath and the Shepparton Road / Duncan Street lights
 - (c) Duncan Street footpath to Albany Highway and bus routes [red line]
and/or
 - (d) Victoria Park workplaces and businesses [red line]
and/or

- (e) the shopping centre:
 - (i) to purchase goods [blue line]
 - (ii) to take a shortcut to Albany Highway [blue line]
 - (iii) to shelter from the weather [blue / yellow line]

It is Mr Rankin’s observations that:

- The pedestrian short cut is only attempted / used by people who are walking, citing the steepness of the ramps is a barrier/hazard to persons using wheelchairs, although he was aware of the complaint in 2017 relating to a wheelchair user tipping out of their wheelchair at the shortcut between the steep ramp and slab path.
- Mr Rankin confirmed that often the public that are making this short cut are elderly.
- Other than students using the underpass, it is his observation that of the general public using the steep ramp and underpass tend to do so to avoid rain [yellow line]:
 - Are running down either steep ramp and sheltering in the underpass and along the eastern side of the shopping centre building and taking a shortcut via and/or sheltering in the shopping centre; or
 - To avoid getting very wet from passing buses and trucks heading city-bound on Shepparton Road, taking the ramp(s) and underpass and/or shopping centre short cuts / shelter.

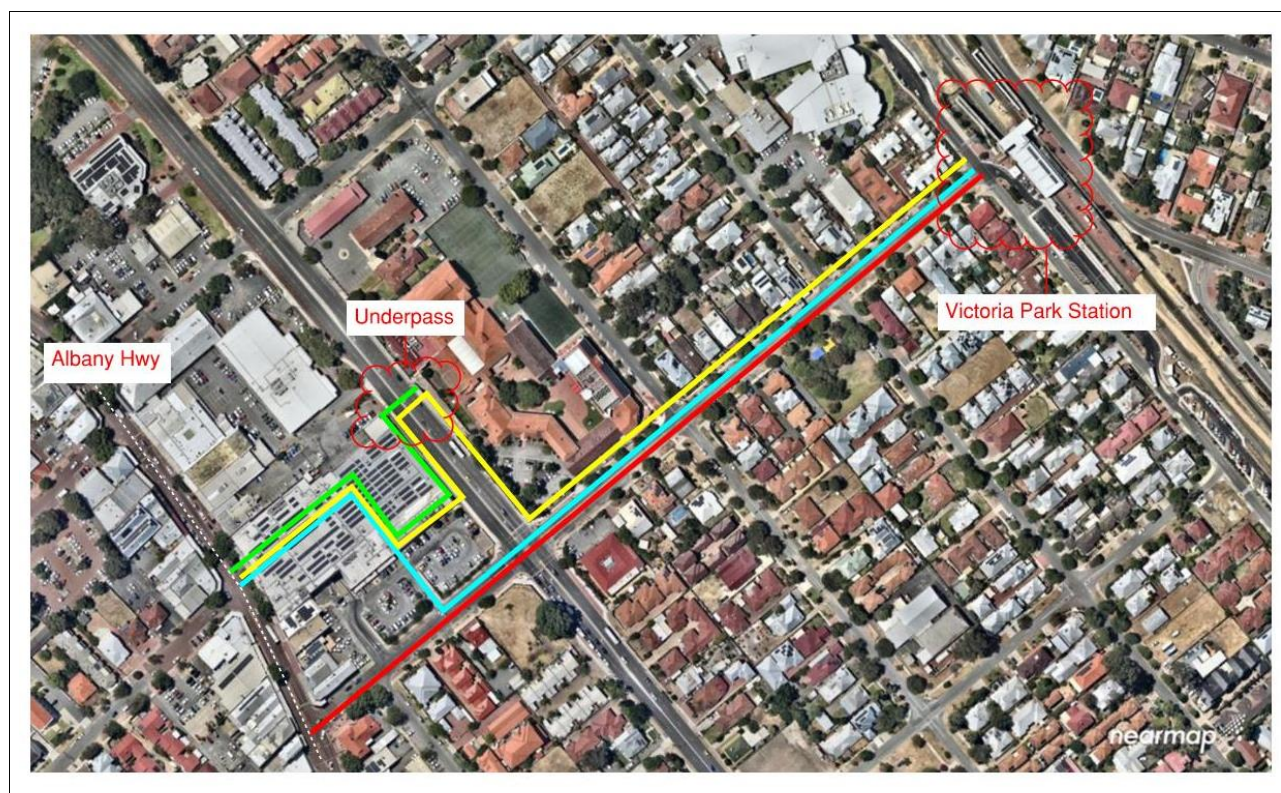


Figure 9: Summary of pedestrian movements and use of the “shortcut”

4. IDENTIFICATION OF BARRIERS/HAZARDS & RISK ASSESSMENT

The barriers/hazards have been summarised below with referenced recommendations made.

No.	Findings	Risk assessment	Recommendation & reference
1.	MRWA steep ramp has a gradient of 1:7 for a length of 30 metres, without interval (rest) landings or handrails.	<p>The steepness of the ramp, without necessary flat landings poses:</p> <ul style="list-style-type: none"> • A significant fall/stumble hazard to all pedestrians including persons with ambulant disability or other medical condition or neurological disorder who is walking down the ramp. • A significant risk in descent for a wheelchair user as there is no rest landing and the steepness will result in increased momentum and potential loss of control for a manual wheelchair user. • Additional to this risk in descent is the risk to other pedestrians or persons emerging from the underpass from being struck by an uncontrolled wheelchair / wheeled mobility device. 	<p>As a high priority:</p> <p>1.1 Install warning signage at the top of the ramps informing pedestrians of the steep gradient and unsuitability for wheeled devices (wheelchairs, prams, wheeled walkers).</p> <p>1.2 Provide directional signage at the entrance to the top ramp landing [inclusive of the international symbol of access and a pram symbol / aged person symbol and a directional arrow], directing pedestrians towards the Duncan Street footpath.</p> <p>1.3 Provide warning signage at the base of the steep ramp to direct any pedestrian who is a wheelchair user who has arrived at the base of the steep ramp to take an alternate route to the shopping centre / Albany Hwy, e.g. via the Shepparton Road footpath / in front of Services Australia.</p> <p>1.4 On the Ursula Frayne side of Shepparton Road, provide warning signage at the top of the ramp that advises pedestrians the ramp/underpass is not a suitable accessway to the Victoria Park (Vicinity) Shopping Centre.</p> <p>1.5 Prevent wheelchair access onto the steep ramp by installing a bollard at the top and base, reducing the gap onto the ramp to be less than 740mm [AS1428.1 2009 Figure 1 (a)]</p>

No.	Findings	Risk assessment	Recommendation & reference
			A80 occupied wheelchair and Figure 1(b) A90 occupied wheelchair].
			1.6 As a medium priority , develop a wayfinding strategy for the precinct, demonstrating the accessible route between the key infrastructure such as the Victoria Park Station, Albany Highway, Services Australia, the Victoria Park Shopping Centre and the like.
2.	MRWA steep ramp is not furnished with handrails to both sides.	The non-provision of handrails to both sides of the steep ramp renders pedestrians ascending/descending the ramp unsupported. This may result in an aged/medically unwell pedestrian being unable to complete their ascent/descent.	2.1 As a high priority , liaise with MRWA and have handrails installed to both sides of the ramp [AS1428.1 2009 Clause 10.3(e)]. This is in acknowledgement that regardless of signs, pedestrian behaviour would indicate that pedestrians will continue to use the steep ramp.
3.	MRWA steep ramp is not furnished with warning TGSIs at the top or base.	The non-provision of warning TGSIs at the top or base of the steep ramp renders pedestrians who are blind or vision impaired uninformed of the steep ramp gradient.	3.1 As a high priority , liaise with MRWA and have warning TGSIs installed to the top and base of the ramp, with the TGSIs installed as per the rigours of AS1428.4.1 2009 for depth, set back from the ramp transition and luminance contrast.
4.	The MRWA steep ramp is not furnished with a kick rail to the open side of the ramp.	For a wheelchair user who loses control of their wheelchair in descent, impacting the vertical posts with the footplates of their wheelchair may result in the wheelchair tipping forward and the person falling forward out of their wheelchair.	If wheelchair access onto the ramp is prevented by the use of bollards, installation of a kerb rail would not be necessary.
5.	There is an improvised bitumen transition between the MRWA steep ramp and slab path	The transition between the steep ramp and slab path constructed crudely from bitumen, if the railings were open at this transition point, would pose a significant risk to a wheelchair	Remove small bitumen transition "ramp".

No.	Findings	Risk assessment	Recommendation & reference
		user attempting to move between the steep ramp and slab path.	
6.	The ToVP received a complaint in 2017 in regard to a wheelchair user tipping from their wheelchair.	In it my opinion that enabling wheelchair users to access the steep ramp poses a significant risk to the ToVP.	6.1 As a high priority : <ul style="list-style-type: none"> • Advise persons who are a wheelchair user of the inaccessible route (via the steep ramps) prior to them travelling to the steep ramps. • Prevent wheelchair users from entering the steep ramps (or have the ramps decommissioned).
7.	It is Mr Rankin’s observations that pedestrians using the “shortcut” are not wheelchair users but persons who are walking, typically carrying shopping, using a walking aid or are students handling their school bag.	<p>It appears that other than the 2017 incident, the pedestrians using the shortcut are people who are walking. Thus, the greatest risk pertains to them manoeuvring through the railings to take the shortcut.</p> <p>It remains that for persons who are ambulant, manoeuvring through the railing can still result in a fall or injury, or leave a person vulnerable whilst manipulating their shopping bags or the like.</p>	7.1 As a high priority , undertake one of the following: <ol style="list-style-type: none"> a. Install the pedestrian ramp as per Drawing M18-088 [Ramp and Handrail]. b. Retain the railing and construct steps off the end of the slab path in lieu of the pedestrian ramp. <p>Note: Mr Rankin had suggested opening the railings again and installing a bollard at the opening, to prevent wheelchair access but allow access for persons walking. This is a cost-friendly solution; however, with the uneven transition at this point, the construction of a compliant set of steps at the end of the slab path is my recommended/ preferred solution.</p>
8.	Pedestrians who are wheelchair users will be denied access onto the ramp if the above-described actions of using warning signs and placing bollards at the top and base of both ramps	<p>In my opinion, given the significant gradient of the MRWA steep ramps, enabling wheelchair access poses a significant risk to the ToVP and MRWA.</p> <p>In my opinion, denying wheelchair access to the steep ramps does not pose a risk under the Disability Discrimination Act 1992 (Cth) as</p>	As an alternate solution to the pedestrian ramp that has been proposed to provide safe and equitable access for all people, I am of the opinion constructing a compliant set of steps in lieu of the proposed ramp is an option worthy of investigation that will provide a safe access solution. I do not perceive

No.	Findings	Risk assessment	Recommendation & reference
		safe alternative access routes are provided, and the steep ramps do not provide any benefit in regard to travel distances to the key destinations.	installing steps rather than a ramp poses a quantifiable risk to the ToVP.

5. CONCLUSION

In conclusion, based on the information gathered at the site inspection on 28 November 2023 and consultation with Mr Tim Rankin [Vicinity Centres], I consider the two most reasonable solutions are:

- (1) Install the pedestrian ramp as per Drawing M18-088 [Ramp and Handrail].
- (2) Retain the railing and construct steps off the end of the slab path in lieu of the pedestrian ramp.

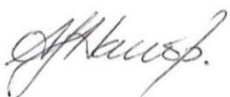
I recommend the railing is kept in place.

I consider the construction of steps as an alternate solution to the pedestrian ramp as an option worthy of investigation that will provide a safe access solution for the current users, principally school children taking a shortcut to Albany Highway via the shopping centre and ambulant pedestrians using the ramp / underpass and shopping centre building as a shortcut and shelter in inclement weather.

I do not perceive installing steps rather than a ramp poses a quantifiable risk to the Town of Victoria Park, and further, I recommend taking active steps to prevent wheelchair user access onto the two steep pedestrian ramps, supporting this action with directional signage, routing pedestrians who are wheelchair users away from this accessway.

Should you require any further information, I would be pleased to assist,

Yours sincerely



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